



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/786,298      | 02/26/2004  | Steven L. Purcell    | RIC-03-003          | 1949             |

25537 7590 07/23/2004

MCI, INC  
TECHNOLOGY LAW DEPARTMENT  
1133 19TH STREET NW, 10TH FLOOR  
WASHINGTON, DC 20036

|          |
|----------|
| EXAMINER |
|----------|

MAYO, TARA L

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3671

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/786,298

Applicant(s)

PURCELL, STEVEN L.

Examiner

Tara L. Mayo

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: undefined abbreviations.

In the Specification on page 5, paragraph 0023 at line 4, define HDPE and HD20.

Appropriate correction is required.

### *Claim Objections*

2. Claims 6, 18, and 28 are objected to because of the following informalities: undefined abbreviation.

In claim 6 on line 6, define HDPE as --high-density polyethylene--. Repeat the correction for both claims 18 and 28. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5, 17, and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claims 5, 17, and 27, the scope of the claimed invention is indefinite because Applicant fails to define the abbreviation "HD20."

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 14 through 16 and 19 through 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Finzel et al. (U.S. Patent No. 6,371,691 B1).

Finzel et al. '691, as seen in Figure 48, disclose an assembly for carrying cable within a trench cut (VN) in concrete or asphalt, comprising:

with regard to claim 14,

a duct (MK) comprising a tubular material (MKR) having a hollow inner diameter and an outer diameter that is approximately equal to a width of the trench; and

cable placed within the hollow inner diameter of the duct;

with regard to claim 15,

a tubular spacer (GU) placed adjacent the duct within the trench;

with regard to claim 16,

further comprising sealer (FM) placed over the duct within the trench to fill at least a portion of the trench not occupied by the duct;

Art Unit: 3671

with regard to claim 19,

wherein the tubular material comprises an outer diameter of approximately 0.5 inch and an inner diameter of approximately 0.375 inch (col. 2, lines 42 through 56); and

with regard to claim 20,

wherein the sealer comprises bitumen (col. 23, lines 54 through 58).

With regard to claim 21, Finzel et al. '691 expressly teach the use of rubber for making the spacer (col. 24, lines 19 through 29; and col. 25, lines 19 through 23), rubber materials are water impermeable and can be heat resistant to approximately 400° Fahrenheit (for example, silicone rubber).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 through 13, 18, 22 through 26, and 28 through 30 are ejected under 35 U.S.C. 103(a) as being unpatentable over Finzel et al. (U.S. Patent No. 6,371,691 B1).

Finzel et al. '691 disclose a method of placing cable beneath a roadway comprising the steps of:

Art Unit: 3671

with regard to claims 1 and 23,

the steps of cutting a trench (19) surface of the roadway;

placing a duct (MKR) in the trench; and

filling the trench with a sealer (FM);

with regard to claim 2,

wherein a utility cable is positioned within the duct;

with regard to claims 3 and 24,

wherein a fiber optic cable is positioned within the duct;

with regard to claims 4 and 23,

wherein the trench is cut to a depth of approximately 3.5 to 4.0 inches beneath the surface of the roadway (col. 3, lines 1 through 6);

with regard to claims 6, 18, and 28,

wherein the duct comprises polyethylene (col. 22, lines 10 through 14);

with regard to claim 7,

wherein the trench is cut to a width of approximately 0.5 inches (col. 3, lines 1 through 6);

with regard to claims 8 and 25,

further comprising placing a spacer (GU) within the trench on top of the duct, wherein the spacer comprises a water impermeable, heat resistant material;

with regard to claim 9,

wherein the space comprises a tubular shape;

with regard to claim 11,

further comprising placing sand (20) within the trench;  
with regard to claim 12,

wherein the sealer comprises bitumen (col. 23, lines 54 through 58); and  
with regard to claim 29,

wherein the tubular material comprises an outer diameter of approximately 0.5 inch and  
an inner diameter of approximately 0.375 inch (col. 2, lines 42 through 56).

With regard to claim 1, Finzel et al. '691 fail to teach the step of placing cable within the duct after filling the trench with sealer. It would have been obvious to one having ordinary skill in the art of cable laying at the time of invention to modify the method disclosed by Finzel et al. '691 such that the cable would be placed in the duct after the trench is filled with sealer. The motivation would have been to install prevent damage to the cables during the laying operations.

With regard to claims 6, 18, and 28, Finzel et al. '691 fail to expressly teach high-density polyethylene (HDPE). However, it is a well-known expedient in the art of conduits to use HDPE for ducts surrounding cables in subsurface applications.

With regard to claims 10, 22, and 26, Finzel et al. '691 are silent with respect to the diameter of the spacer. However, it would have been obvious to one having ordinary skill in the art of cable laying at the time of invention to modify the method and apparatus disclosed by Finzel et al. '691 such that the diameter of the spacer would be approximately 25% greater than a width of the trench. The motivation would have been to more effectively seal the duct

Art Unit: 3671

in the bottom of the trench by providing a larger surface area of contact between the sealer and the trench walls.

With regard to claims 13 and 30, while Finzel et al. '691 do not expressly teach the claimed temperature range, the limitation is anticipated by the reference because it is inherent to roadway applications requiring the use of hot melt bitumen.

With regard to claim 25, Finzel et al. '691 expressly teach the use of rubber for making the spacer (col. 24, lines 19 through 29; and col. 25, lines 19 through 23), rubber materials are water impermeable and can be heat resistant to approximately 400° Fahrenheit (for example, silicone rubber).

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 703-305-3019. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 703-308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

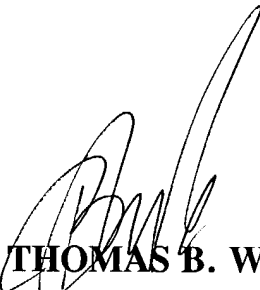


Art Unit: 3671

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'JLM'.

14 July 2004

A large, stylized handwritten signature in black ink, appearing to be 'Thomas B. Will'.

**THOMAS B. WILL**  
**SUPERVISORY PATENT EXAMINER**  
**GROUP 3600**